

REMARKS

Applicants thank the Examiner for the thorough consideration given the present application. Claims 1-3, 5-6, 8-10, and 12 are currently being prosecuted. The Examiner is respectfully requested to reconsider his rejections in view of the amendments and remarks as set forth below.

Rejection Under 35 U.S.C. § 112

Claims 1-3, 5, 6, and 8-11 stand rejected under 35 U.S.C. § 112, first paragraph for failing to comply with the written description requirement. In regard to claim 1, the Examiner objects to the phrase “without preheat treatment.” By way of the present Amendment, Applicants have removed this phrase as well as the phrase “one-stage-compressed.” It is believed that these deletions remove any possible problems in regard to 35 U.S.C. 112, first paragraph. However, Applicants wish to point out that the specification does provide basis for a similar limitation of “without a drying step” which can be found on page 3, line 13; page 7, line 1; page 19, line 12; and the abstract. However, in order to avoid any possible ambiguity, Applicants have removed the limitations completely.

In regard to claims 5, 10, and 11, the Examiner objected to the phrase “remarkably reduced density of the edge portions.” Applicants have removed this limitation and instead refer to the density of the edge portion being lower than that of the core portion. Basis for this is found in the original specification on page 15, lines 13-16. Accordingly, Applicants submit that this part of the rejection is also overcome.

Claims 5, 6, and 8-11 stand rejected under 35 U.S.C. § 112, second paragraph as being indefinite due to the same language. Since this language has been removed, Applicants submit that this rejection is likewise overcome.

Rejection Under 35 U.S.C. § 102

Claims 10 and 11 stand rejected under 35 U.S.C. § 102 as being anticipated by or obvious over Arakawa et al. (U. S. Patent 6,267,920). This rejection is respectfully traversed.

The Examiner states that the Arakawa et al. teaches a method of compressing wood against a shaping jig. A vinyl monomer can be used to fill cracks and vacancies on the surfaces of the wood. The Examiner admits that Arakawa et al. does not teach all of the process limitations such as dry heating the lumber, forming the cracks and vacancies by wood nematodes and using a die having a male and female section. The Examiner points out that since these are product claims, the limitations become product-by-process type limitations.

In regard to claim 11, Applicants note that this claim has been cancelled and replaced by new claim 12 which is a method claim. However, this claim relates to the same invention claimed in product claim 11. Since this is now a method claim, Applicants submit that these limitations now have patentable weight.

In regard to claim 10, the claim has been amended to point out that the water absorptivity is higher than that of compressed lumber made from ordinary lumber. This is not seen in Arakawa et al. Further, both of these claims recite that the density of the edge portion is lower than that of the core portion. Further, this patent wholly discloses a method of hydraulically compressing lumber. The step of dry heating the lumber in the compressing die in which the

compressed lumber is air tightly accommodated in the compressed state or permanently compressing the lumber, is not disclosed or suggested at all in the reference. In view of this, Applicants submit that claims 10 and 12 overcome this rejection. Accordingly, removal of this rejection is respectfully requested.

Rejection Under 35 U.S.C. § 103

Claims 5, 6, and 8-11 stand rejected under 35 U.S.C. § 103 as being obvious over Viitaniemi et al. (U.S. Patent No. 5,685,353) in view of Arakawa et al. This rejection is respectfully traversed.

The Examiner relies on Viitaniemi et al. to teach a method for compressive shaping of wood between upper and lower compression plates. The Examiner points out that Fig. 1 illustrates that the ends of the wood are not in contact with the plates and therefore are exposed to air. The Examiner feels that due to the water content, Viitaniemi et al. teaches an inherent rigidity of 130MPa or more. The Examiner admits that Viitaniemi et al. do not teach having a die with male and female die sections. The Examiner also assumes that since the wood is pine, that it would have holes formed by pine weevils. The Examiner admits that this reference does not show the use of wood with holes in an edge portion and the application of functional additive to fill holes in the wood. The Examiner relies on Arakawa et al. to teach the use of vinyl monomer to fill cracks.

Applicants submit that Viitaniemi et al. teach that lumber is clamped between two plates with their end faces opened. When the lumber is heated, moisture in the end parts evaporates in the air from the opened end faces. Thus, the end parts cannot be sufficiently compressed and

fixed by the heat treatment. This is clearly disclosed in an article previously submitted from the Journal of Japan Wood Research Society, Volume 34, No. 6, pages 410-416 (1998), which was cited in an Information Disclosure Statement dated December 7, 2004. According to Figure 7 of this article, the degree of compressed fixation of the lumber, whose end faces are open, is lower than that of the lumber whose end parts are restrained by the restraining jig.

Applicants also wish to point out that claims 5, 10, and 12 also now describe the density of the edge portion as being lower than that of a core portion and that the core portion has no holes formed by pine wood nematodes. Since neither of these references teach this feature, Applicants submit that these claims are also allowable.

Changes to the Specification

Applicants have amended the specification on page 13 in order to provide a more accurate translation. The language now provided is taken directly from page 11, lines 7-10 of the Japanese application (copy attached). Applicants submit that since this is clearly an error in translation that no new matter is being inserted by these changes in language.

Conclusion

In view of the above remarks, it is believed that the claims clearly distinguish over the patents relied on by the Examiner, either alone or in combination. In view of this, reconsideration of the rejections and allowance of all of the claims are respectfully requested.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Robert F. Gnuse (Reg. No. 27,295), at the

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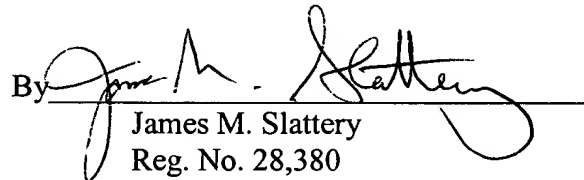
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Art Unit: 1773
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telephone number of (703) 205-8000, to conduct an interview in an effort to expedite prosecution in connection with the present application.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

Respectfully submitted,

BIRCH, STEWART, KOLASCH & BIRCH, LLP

By 
James M. Slattery
Reg. No. 28,380

 JMS/RFG/njp/mag

P.O. Box 747
Falls Church, VA 22040-0747
(703) 205-8000

Attachments: Japanese Application